

Fig. 1

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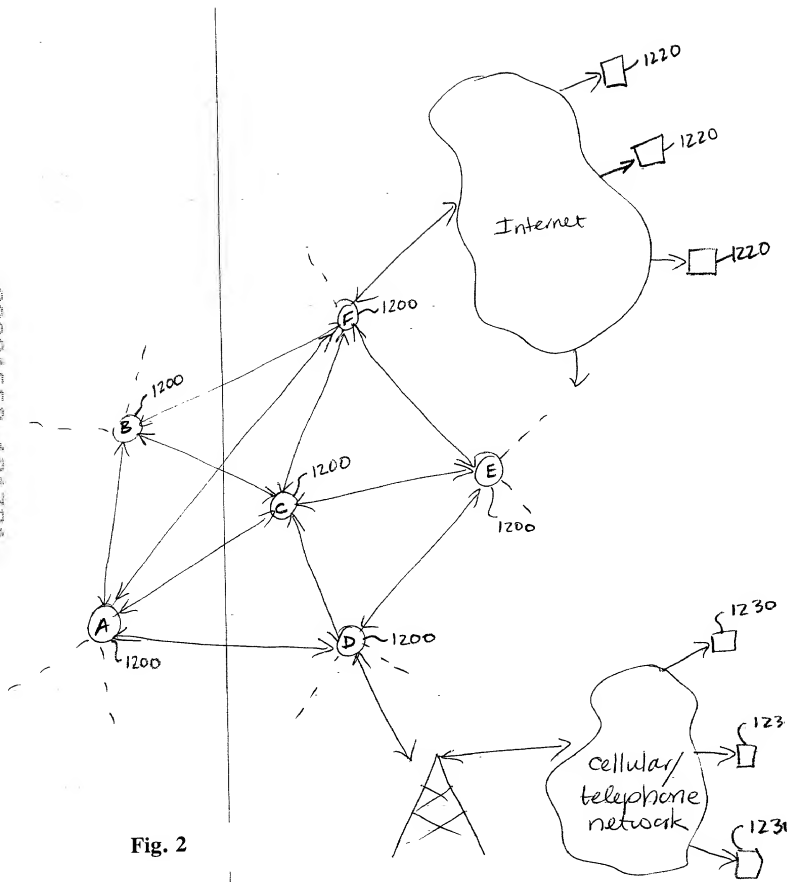


Fig. 2

Location Based Internet

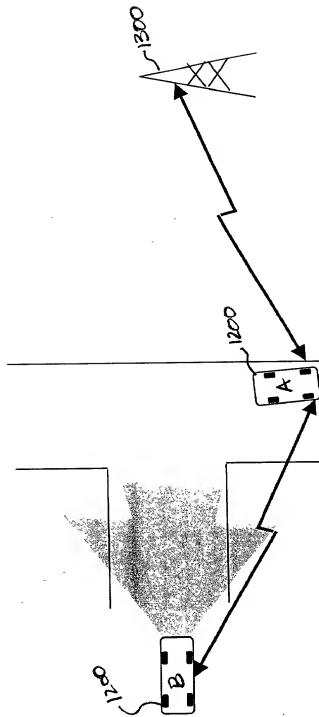


Fig. 3



idc
Integrated
data communications

Place the call.™

102101'0918060

Location Based Internet

Broad Ban Portals
Increased Situational Awareness
Inter-vehicle Data Exchange
Blue Tooth Access

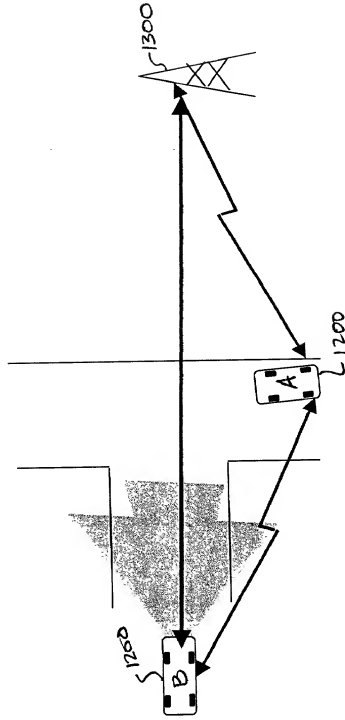


Fig. 4

Figure No. 1



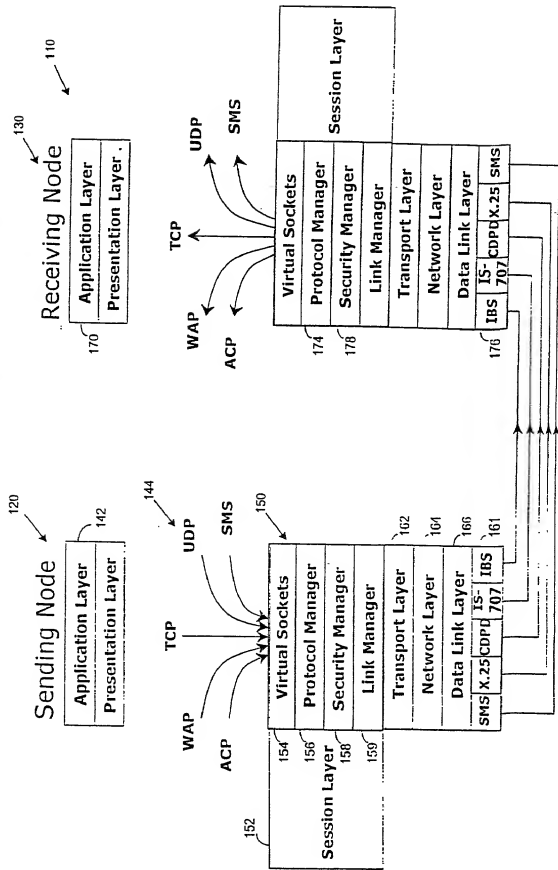


Fig. 6

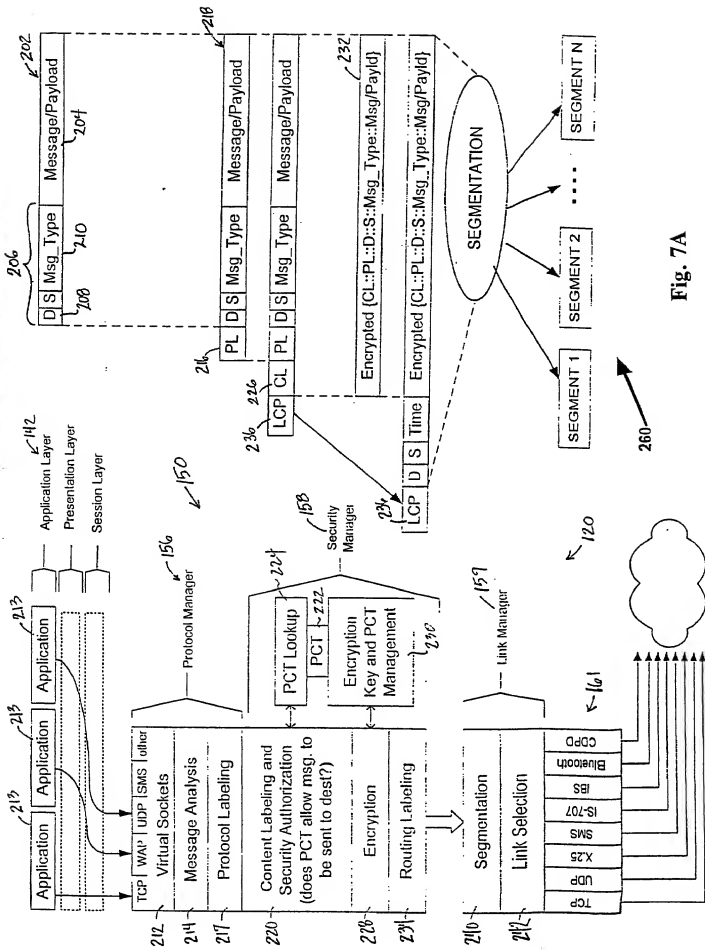
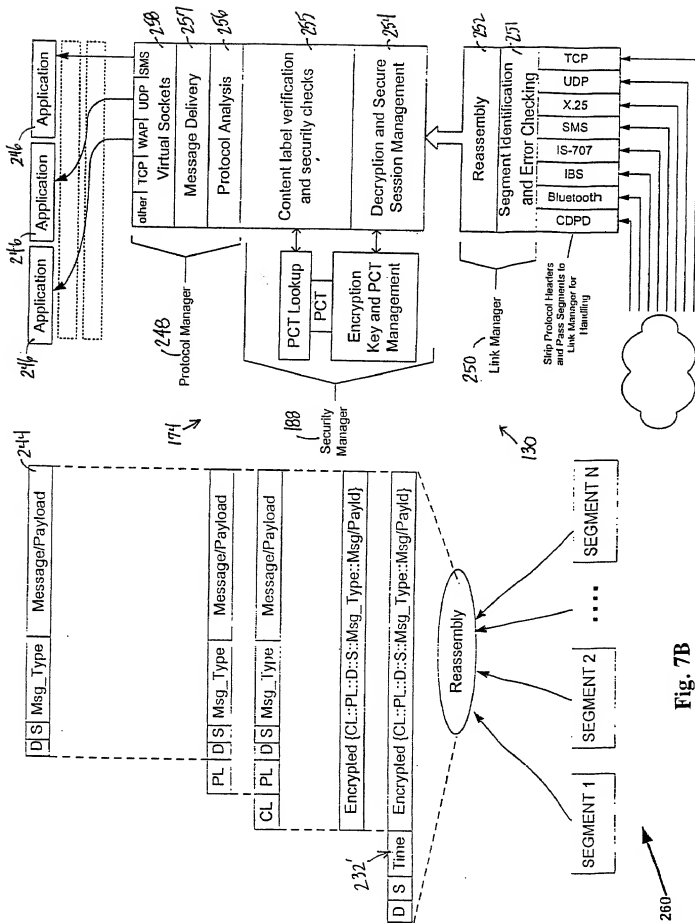


Fig. 7A



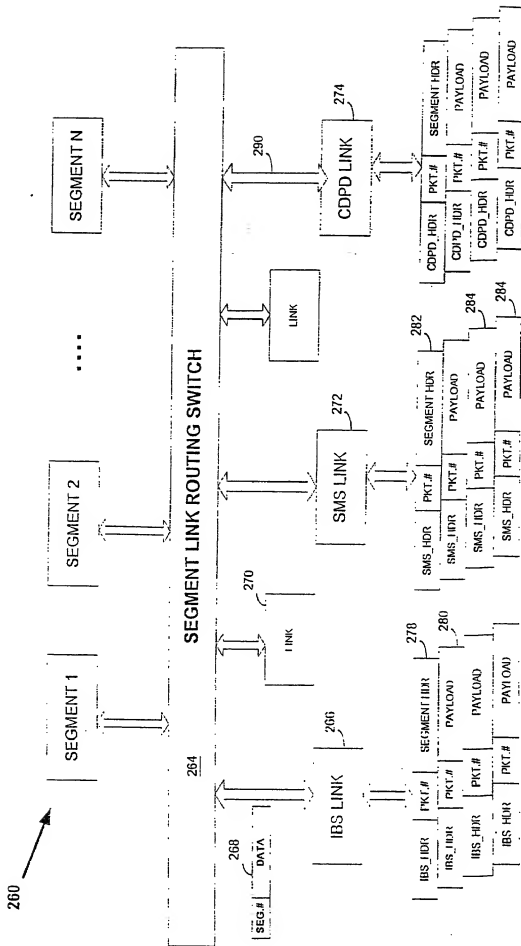
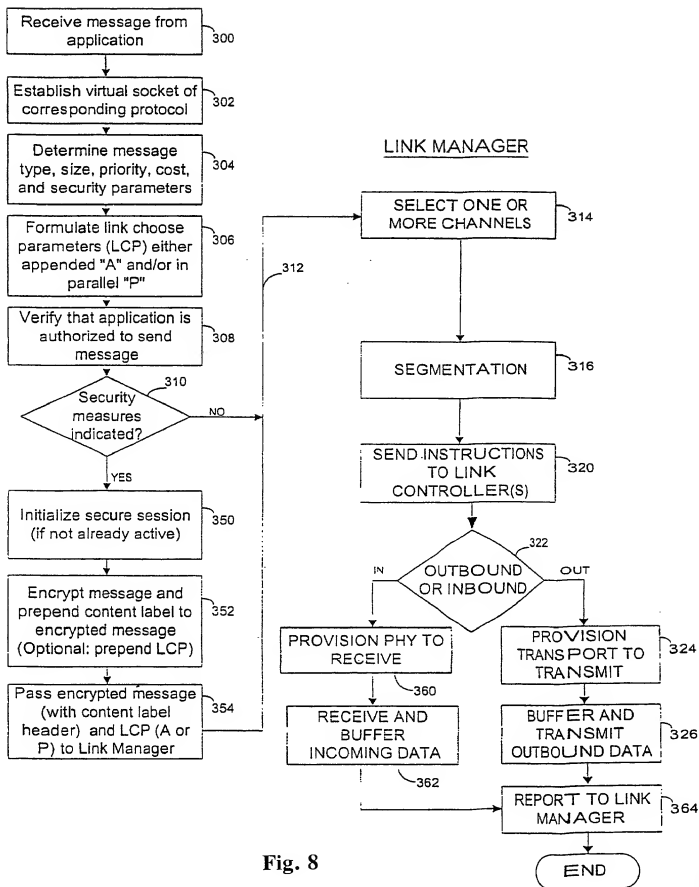


Fig. 7C



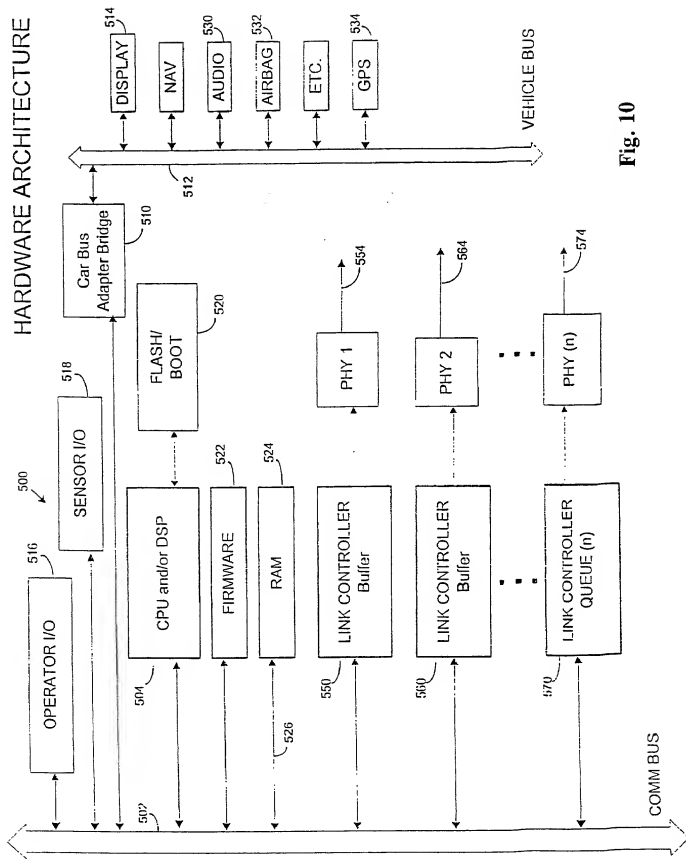


Fig. 10

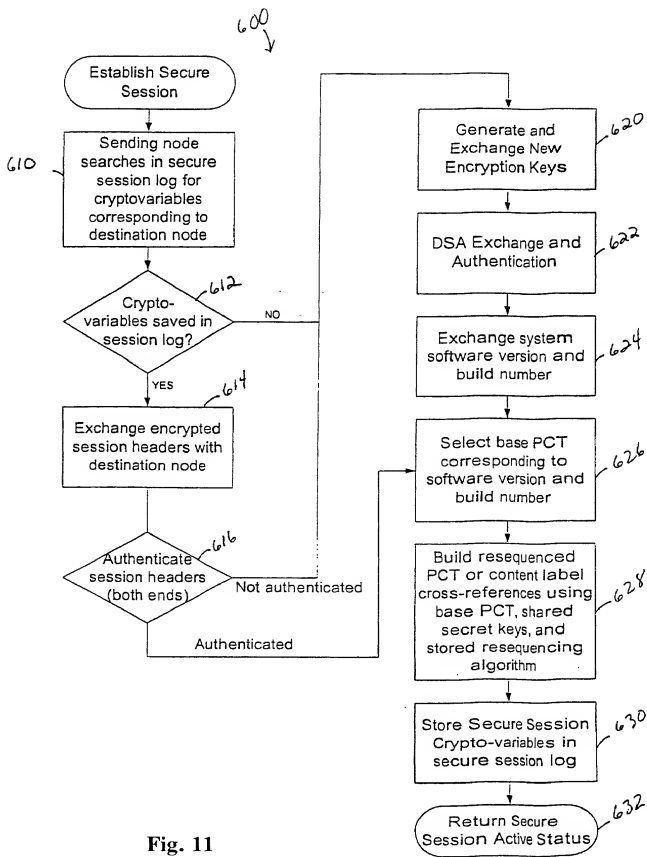


Fig. 11

Call Center Node Process Flow

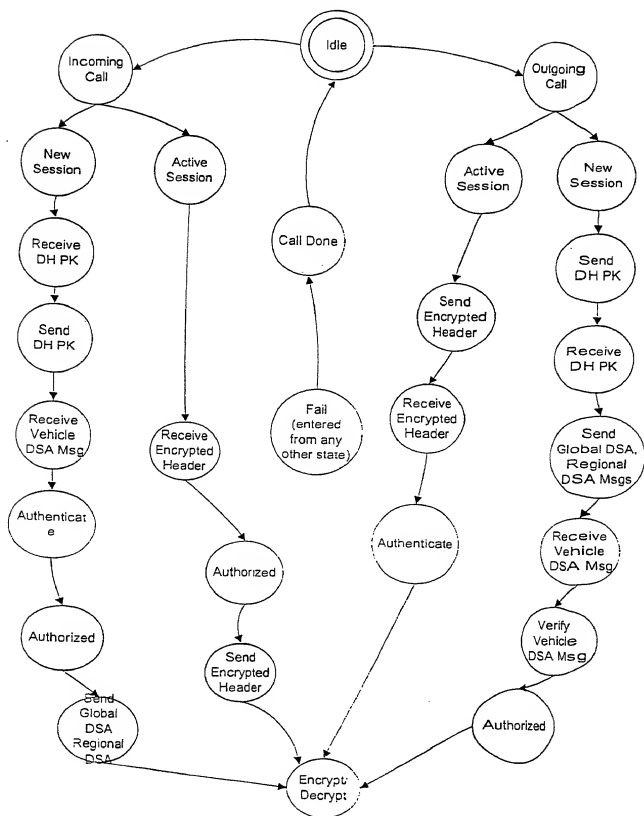


Fig. 12

Vehicle Node Process Flow

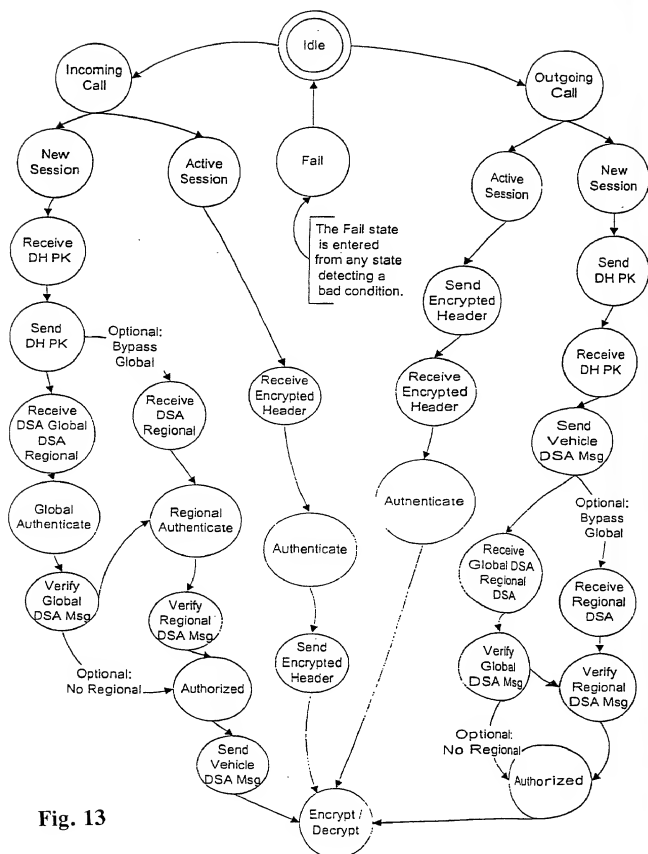


Fig. 13

Mobile Node: Incoming Message Privilege Control Table (PCT)

Content Label (CL)	Source Address	Source Application	Destination Application	Message Type	Message size (KB)	Security level (min)
0				(reserved)		
1	Telephone Carrier	Telephone	Telephone	incoming call	> 10	low
2	Police	Stranded Assist	Security	Unlock	< 10	high
3	PSAP	911 response	Location	location query	< 10	medium
4	ISP	Messaging	Email	email	10-5000	low
5	ISP, vehicles	Local News	Operator I/O	weather report	50-200	medium
6	ISP, vehicles	Traffic News	Operator I/O	congestion alert	50-300	low
7	Home	Mapping	Location	location query	< 10	medium
8	Auto Dealer Center	Maintenance	Convenience	software patch	20-400	medium
9	Auto Dealer Center	Maintenance	Comfort	query diagnostics	20-50	medium
10	Auto Dealer Center	Maintenance	Location	software patch	20-100	medium
11	Automaker Eng'g	Engine	Engine settings	adjust intake	150-200	high
12	Automaker Eng'g	Safety	AUS settings	adjust braking	150-200	high
13	Auto Maintenance	Service Notify	Operator I/O	service due	20-40	medium
14	Auto Club	Security	Security	unlock	< 10	high
15	Auto Club	Roadside Assist	Location	location query	< 10	medium
16	(any)	Audio Delivery	Stereo	digital audio data	500-10000	low
17	State Trooper	Road Closures	Navigation	road closure notice	10-50	low
18						
...						

Fig. 14A

Fig. 14B

Vehicle Node: Outgoing Message Privilege Control Table (PCT)

Content Label (CL)	Source Application	Destination Address	Destination Application (reserved)	Message Type	Message size (KB)	Security Level (min)
0						
...						
3	Emergency	PSAP - 911 call center	911 response	emergency distress	any	off
4	Text messaging	ISP mail server	Messaging	email	<5000	low
6	Traffic Monitor	(local vehicles, traffic police, media)	Operator I/O, Traffic News	traffic flow data	<20	medium
...						
15	Roadside Assist	Auto Club	Call Center	need roadside help	30-100	medium
...						

Fig. 14C

Auto Club Call Center Node: Outgoing Message Privilege Control Table (PCT)

Content Label (CL)	Source Application	Destination Address	Destination Application (reserved)	Message Type	Message size (KB)	Security Level (min)
0						
14	Security	Vehicle	Security	unlock	<10	high
15	Roadside Assist	Vehicle	Location	location query	<10	medium
...						

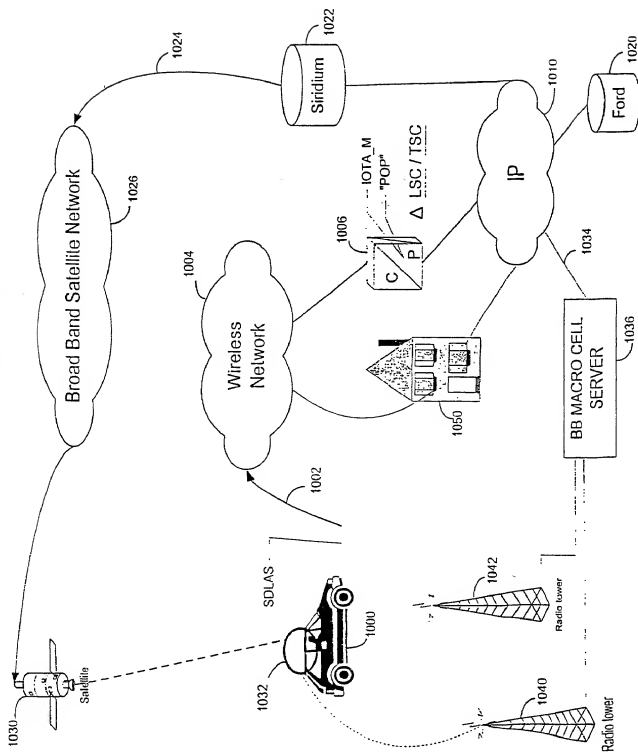


Fig. 15